

Name : ----- Date : -----

CHEMICAL BONDING WORKSHEET

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Answers

1. What are the different types of chemical bonds? Explain with examples.

There are two types of chemical bonds. These are:

a. Covalent Bond - When two (or sometimes more) non-metals share electrons to become stable, the bond they form is said to be covalent.

EXAMPLE:

Hydrogen has a single electron and requires another to become stable, while chlorine, which possesses seven electrons, needs one more to form a stable octet of electrons. One hydrogen atom will share its electron with a chlorine atom so that both their conditions of stability are met.



b. Ionic Bond - When a metal transfers a single electron (or sometimes more) to a non-metal to become stable, the bond formed is said to be ionic.

EXAMPLE:

Both magnesium (Mg) and oxygen (O) need an octet of electrons to become stable. But Mg has two electrons in its outermost shell as an atom, while O has six. So, Mg will transfer its two outermost electrons to O to become stable. This results in the formation of the ions Mg^{2+} and O^{2-} , which form the ionic compound MgO.

